

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	(enrich\$ or isolat\$ or prepar\$) (stem or precursor or progenitor) cell\$	122	<u>L7</u>
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	13 and (enrich\$ or isolat\$ or prepar\$)	236	<u>L6</u>
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	14 and (enrich\$ or isolat\$ or prepar\$)	142	<u>L5</u>
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	13 and (liver or muscle)	142	<u>L4</u>
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	(stem or precursor or progenitor) same (nonadherent\$ or non-adherent\$)	254	<u>L3</u>
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	(stem or precursor or progenitor) and (nonadherent\$ or non-adherent\$)	1463	<u>L2</u>
USPT	6241984.pn.	1	<u>L1</u>

Attachment  
to FoAm paper  
# 9

**WEST**[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#)[Search Form](#)[Posting Counts](#)[Show S Numbers](#)[Edit S Numbers](#)[Preferences](#)

Your wildcard search against 2000 terms has yielded the results below

Search for additional matches among the next 2000 terms

**Search Results -**

Term	Documents
ENRICH\$	0
ENRICH.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	13123
ENRICHABILITY.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
ENRICHABLE.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	12
ENRICHABLY.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
ENRICHASHCHEN.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	2
ENRICHBLEMS.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
ENRICHCALCIUM.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
ENRICHCD.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	2
ENRICHCHN.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
.....	
CELL\$(CELLOSOLVES-M-11).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	pickup term
((ENRICH\$ OR ISOLAT\$ OR PREPAR\$) (STEM OR PRECURSOR OR PROGENITOR) CELL\$ ).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	122

[There are more results than shown above. Click here to view the entire set.](#)

Database:

US Patents Full-Text Database  
US Pre-Grant Publication Full-Text Database  
JPO Abstracts Database  
EPO Abstracts Database  
Derwent World Patents Index  
IBM Technical Disclosure Bulletins

Refine Search:

(enrich\$ or isolat\$ or prepar\$) (stem or  
precursor or progenitor) cell\$

[Clear](#)**Search History****Today's Date: 7/11/2001**

### Status: Path 1 of [Dialog Information Services via Modem]

### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)  
Trying 3106900061...Open

DIALOG INFORMATION SERVICES  
PLEASE LOGON:

\*\*\*\*\* HHHHHHHH SSSSSSSS?

### Status: Signing onto Dialog

\*\*\*\*\*

ENTER PASSWORD:

\*\*\*\*\* HHHHHHHH SSSSSSSS? \*\*\*\*\*

Welcome to DIALOG

### Status: Connected

Dialog level 01.06.26D

Last logoff: 30jun01 13:17:45

Logon file001 11jul01 09:17:58

\*\*\* ANNOUNCEMENT \*\*\*

\*\*\*

--Important Notice to Freelance Authors--

See HELP FREELANCE for more information

\*\*\*

NEW FILE RELEASED

\*\*\*EIU Business Magazines (File 622)

\*\*\*IBISWorld Market Research (File 753)

\*\*\*Investext PDF Index (File 745)

\*\*\*Daily and Sunday Telegraph (London) Papers (File 756)

\*\*\*The Mirror Group Publications (United Kingdom) (File 757)

UPDATING RESUMED

\*\*\*Delphes European Business (File 481)

\*\*\*Books In Print (File 470)

\*\*\*

RELOADED

\*\*\*Kompass Middle East/Africa/Mediterranean (File 585)

\*\*\*Kompass Asia/Pacific (File 592)

\*\*\*Kompass Central/Eastern Europe (File 593)

\*\*\*Kompass Canada (File 594)

New pricing structure for Pharmaprojects (Files 128/928) from  
April 1, 2001. Check Help News128 or Help News928 for further  
information.

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news service. First Release updates major newswire  
databases within 15 minutes of transmission over the  
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\*\*\*\*

KWIC is set to 50.

HIGHLIGHT set on as '\*'

File 1:ERIC 1966-2001/Jul 09

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Set Items Description

--- -----

?b 71, 5, 155, 434

11jul01 09:18:12 User259980 Session D134.1

\$0.25 0.071 DialUnits File1

\$0.25 Estimated cost File1

\$0.01 TYMNET

\$0.26 Estimated cost this search  
\$0.26 Estimated total session cost 0.071 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 71:ELSEVIER BIOBASE 1994-2001/Jul W2

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File 5:Biosis Previews(R) 1969-2001/Jul W1

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File 155:MEDLINE(R) 1966-2001/Jul W3

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\*File 155: This file has been reloaded. Accession numbers have changed.  
Please see Help News155 for further details.

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec

(c) 1998 Inst for Sci Info

Set	Items	Description
---	-----	-----
?s stem(w)cell?		
Processing		
	235081	STEM
	5938492	CELL?
S1	101833	STEM(W)CELL?
?s s1(s)	(isolat? or prepar? or enrich)	
	101833	S1
	1801941	ISOLAT?
	847227	PREPAR?
	2868	ENRICH
S2	6556	S1(S) (ISOLAT? OR PREPAR? OR ENRICH)
?s s2 and	(non-adherent or nonadherent)	
	6556	S2
	64	NON-ADHERENT
	5456	NONADHERENT
S3	50	S2 AND (NON-ADHERENT OR NONADHERENT)
?s s3 and liver		
	50	S3
	1062254	LIVER
S4	5	S3 AND LIVER
?rd		
...completed examining records		
S5	3	RD (unique items)
?t/9/all		

5/9/1 (Item 1 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
(c) 2001 Elsevier Science B.V. All rts. reserv.

01351979 2000026887  
Expression of VEGFR-2 and AC133 by circulating human CD34sup + cells  
identifies a population of functional endothelial precursors  
Peichev M.; Naiyer A.J.; Pereira D.; Zhu Z.; Lane W.J.; Williams M.; Oz  
M.C.; Hicklin D.J.; Witte L.; Moore M.A.S.; Rafii S.  
ADDRESS: S. Rafii, Weill Med. Coll. of Cornell Univ., Hematology-Oncology  
Division, 1300 York Ave, New York, NY 10021, United States  
EMAIL: srafi@mail.med.cornell.edu  
Journal: Blood, 95/3 (952-958), 2000, United States  
PUBLICATION DATE: February 1, 2000  
CODEN: BLOOA  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 29

Emerging data suggest that a subset of circulating human CD34sup + cells  
have phenotypic features of endothelial cells. Whether these cells are  
sloughed mature endothelial cells or functional circulating endothelial  
precursors (CEPs) is not known. Using monoclonal antibodies (MoAbs) to the  
extracellular domain of the human vascular endothelial receptor-2  
(VEGFR-2), we have shown that 1.2 +/- 0.3% of CD34sup + cells \*isolated\*  
from fetal \*liver\* (FL), 2. +/- 0.5% from mobilized peripheral blood, and  
1.4 +/- 0.5% from cord blood were VEGFR-2sup +. In addition, most CD34sup

+VEGFR-2sup + cells express hematopoietic \*stem\* \*cell\* marker AC133. Because mature endothelial cells do not express AC133, coexpression of VEGFR-2 and AC133 on CD34sup + cells phenotypically identifies a unique population of CEPs. CD34sup + VEGFR-2sup + cells express endothelial-specific markers, including VE-cadherin and E-selectin. Also, virtually all CD34sup + VEGFR-2sup + cells express the chemokine receptor CXCR4 and migrate in response to stromal-derived factor (SDF)-1 or VEGF. To quantitate the plating efficiency of CD34sup + cells that give rise to endothelial colonies, CD34sup + cells derived from FL were incubated with VEGF and fibroblast growth factor (FGF)-2. Subsequent \*isolation\* and plating of \*nonadherent\* FL-derived VEGFR-2sup + cells with VEGF and FGF-2 resulted in differentiation of AC133sup + VEGFR-2sup + cells into adherent AC133sup - VEGFR-2sup + Ac- LDLsup + (acetylated low-density lipoprotein) colonies (plating efficiency of 3%). In an in vivo human model, we have found that the neointima formed on the surface of left ventricular assist devices is colonized with AC133sup + VEGFR-2sup + cells. These data suggest that circulating CD34sup + cells expressing VEGFR-2 and AC133 constitute a phenotypically and functionally distinct population of circulating endothelial cells that may play a role in neo-angiogenesis.

CLASSIFICATION CODE AND DESCRIPTION:

89.2.4 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Growth Factors and Inhibitors  
 89.5.1.7 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Epithelial and endothelial cells  
 89.5.1.2 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Blood cells  
 86.13.1.1 - IMMUNOLOGY AND INFECTIOUS DISEASES / TECHNOLOGY / Techniques / Monoclonal antibodies

5/9/2 (Item 1 from file: 5)  
 DIALOG(R)File 5: Biosis Previews(R)  
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12410903 BIOSIS NO.: 200000164405  
 Expression of VEGFR-2 and AC133 by circulating human CD34+ cells identifies a population of functional endothelial precursors.  
 AUTHOR: Peichev Mario; Naiyer Afzal J; Pereira Daniel; Zhu Zhenping; Lane William J; Williams Mathew; Oz Mehmet C; Hicklin Daniel J; Witte Larry; Moore Malcolm AS; Rafii Shahin(a)  
 AUTHOR ADDRESS: (a)Hematology-Oncology Division, Weill Medical College of Cornell University, 1300 York Ave, Room C-606, New York, NY, 10021\*\*USA  
 JOURNAL: Blood. 95 (3):p952-958 Feb. 1, 2000  
 ISSN: 0006-4971  
 DOCUMENT TYPE: Article  
 RECORD TYPE: Abstract  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

ABSTRACT: Emerging data suggest that a subset of circulating human CD34+ cells have phenotypic features of endothelial cells. Whether these cells are sloughed mature endothelial cells or functional circulating endothelial precursors (CEPs) is not known. Using monoclonal antibodies (MoAbs) to the extracellular domain of the human vascular endothelial receptor-2 (VEGFR-2), we have shown that 1.2 +/- 0.3% of CD34+ cells isolated from fetal \*liver\* (FL), 2 +/- 0.5% from mobilized peripheral blood, and 1.4 +/- 0.5% from cord blood were VEGFR-2+. In addition, most CD34+VEGFR-2+ cells express hematopoietic \*stem\* \*cell\* marker AC133. Because mature endothelial cells do not express AC133, coexpression of VEGFR-2 and AC133 on CD34+ cells phenotypically identifies a unique population of CEPs. CD34+VEGFR-2+ cells express endothelial-specific markers, including VE-cadherin and E-selectin. Also, virtually all CD34+VEGFR-2+ cells express the chemokine receptor CXCR4 and migrate in response to stromal-derived factor (SDF)-1 or VEGF. To quantitate the plating efficiency of CD34+ cells that give rise to endothelial colonies, CD34+ cells derived from FL were incubated with VEGF and fibroblast growth factor (FGF)-2. Subsequent \*isolation\* and plating of \*nonadherent\* FL-derived VEGFR-2+ cells with VEGF and FGF-2 resulted in differentiation of AC133+ VEGFR-2+ cells into adherent AC133-VEGFR-2+Ac-LDL+ (acetylated low-density lipoprotein) colonies

(plating efficiency of 3%). In an in vivo human model, we have found that the neointima formed on the surface of left ventricular assist devices is colonized with AC133+VEGFR-2+ cells. These data suggest that circulating CD34+ cells expressing VEGFR-2 and AC133 constitute a phenotypically and functionally distinct population of circulating endothelial cells that may play a role in neo-angiogenesis.

DESCRIPTORS:

MAJOR CONCEPTS: Blood and Lymphatics (Transport and Circulation);  
Cardiovascular System (Transport and Circulation)

BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata,  
Animalia

ORGANISMS: human (Hominidae)--normal subjects

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans;  
Mammals; Primates; Vertebrates

CHEMICALS & BIOCHEMICALS: AC-133 hematopoietic stem cell marker protein  
--circulating CD34-positive blood cell expression, functional  
endothelial cell precursor population identification; vascular  
endothelial growth factor receptor 2--circulating CD34-positive blood  
cell expression, functional endothelial cell precursor population  
identification

CONCEPT CODES:

14504 Cardiovascular System-Physiology and Biochemistry  
15002 Blood, Blood-Forming Organs and Body Fluids-Blood and Lymph  
Studies

BIOSYSTEMATIC CODES:

86215 Hominidae

5/9/3 (Item 2 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
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09019283 BIOSIS NO.: 199497027653

Identification and characterization of hematopoietic stem cells from the  
yolk sac of the early mouse embryo.

AUTHOR: Huang Hua; Auerbach Robert

AUTHOR ADDRESS: Cent. Dev. Biol., Univ. Wisconsin, Madison, WI 53706\*\*USA

JOURNAL: Proceedings of the National Academy of Sciences of the United  
States of America 90 (21):p10110-10114 1993

ISSN: 0027-8424

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: The yolk sac is the first site of hematopoiesis on the mammalian embryo. However, little is known about the initial \*stem\* \*cells\* in the yolk sac. We have \*isolated\* hematopoietic \*stem\* \*cells\* from early mouse embryonic yolk sac by using a sequential protocol of nonadherence to plastic, density gradient centrifugation, immunocytoadherence, and cell sorting. \*Isolated\*, \*nonadherent\*, density lt 1.077 g /cm-3, surface antigen AA4.1+, wheat germ agglutinin bright (WGA-bright) cells give rise to multiple lineages, including T cells, B cells, and myeloid cells, as detected by using fetal thymus organ culture, S17 stromal feeder layers, or methylcellulose culture colony-forming cells, respectively. AA4.1+, WGA-bright cells expressed high levels of heat-stable antigen (HSA) and CD45 (Ly-5) but did not significantly express major histocompatibility complex antigens, CD44, or Sca-1. Peak \*stem\* \*cell\* concentration is reached by day 11, before \*stem\* \*cells\* can be found in the \*liver\*, omentum, or thymus. In vivo long-term reconstitution of lethally irradiated mice was effected by as few as 720 AA4.1+, WGA-bright yolk sac cells, but it required addition of a subset of bone marrow cells capable of providing immediate (short-term) radiation protection. Yolk sac donor-derived T cells, B cells, and macrophages were readily identified 6 months after transfer of yolk sac-derived \*stem\* \*cells\*. We suggest that, because of their cell surface phenotype as well as their capacity to differentiate in vitro and in vivo, the cells \*isolated\* from the mouse embryonic yolk sac may include the most primitive hematopoietic pluripotential \*stem\* \*cells\* yet identified.

DESCRIPTORS:

MAJOR CONCEPTS: Blood and Lymphatics (Transport and Circulation); Cell  
 Biology; Development; Genetics  
 BIOSYSTEMATIC NAMES: Muridae--Rodentia, Mammalia, Vertebrata, Chordata,  
 Animalia  
 ORGANISMS: Muridae (Muridae)  
 BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; chordates; mammals;  
 nonhuman vertebrates; nonhuman mammals; rodents; vertebrates  
 MISCELLANEOUS TERMS: DIFFERENTIATION; PHENOTYPE  
 CONCEPT CODES:  
 02506 Cytology and Cytochemistry-Animal  
 03506 Genetics and Cytogenetics-Animal  
 15004 Blood, Blood-Forming Organs and Body Fluids-Blood Cell Studies  
 15008 Blood, Blood-Forming Organs and Body Fluids-Lymphatic Tissue and  
 Reticuloendothelial System  
 25502 Developmental Biology-Embryology-General and Descriptive  
 25508 Developmental Biology-Embryology-Morphogenesis, General  
 15001 Blood, Blood-Forming Organs and Body Fluids-General; Methods  
 BIOSYSTEMATIC CODES:  
 86375 Muridae  
 ?ds

Set	Items	Description
S1	101833	STEM(W)CELL?
S2	6556	S1(S) (ISOLAT? OR PREPAR? OR ENRICH)
S3	50	S2 AND (NON-ADHERENT OR NONADHERENT)
S4	5	S3 AND LIVER
S5	3	RD (unique items)

?s liver(s)stem(w)cell?  
 Processing  
 1062254 LIVER  
 235081 STEM  
 5938492 CELL?  
 S6 3291 LIVER(S)STEM(W)CELL?  
 ?s s6 and (non-adherent or nonadherent)  
 3291 S6  
 64 NON-ADHERENT  
 5456 NONADHERENT  
 S7 14 S6 AND (NON-ADHERENT OR NONADHERENT)  
 ?rd  
 ...completed examining records  
 S8 7 RD (unique items)  
 ?t/3/all

8/3/1 (Item 1 from file: 71)  
 DIALOG(R)File 71:ELSEVIER BIOBASE  
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01351979 2000026887  
 Expression of VEGFR-2 and AC133 by circulating human CD34sup + cells  
 identifies a population of functional endothelial precursors  
 Peichev M.; Naiyer A.J.; Pereira D.; Zhu Z.; Lane W.J.; Williams M.; Oz  
 M.C.; Hicklin D.J.; Witte L.; Moore M.A.S.; Rafii S.  
 ADDRESS: S. Rafii, Weill Med. Coll. of Cornell Univ., Hematology-Oncology  
 Division, 1300 York Ave, New York, NY 10021, United States  
 EMAIL: srafi@mail.med.cornell.edu  
 Journal: Blood, 95/3 (952-958), 2000, United States  
 PUBLICATION DATE: February 1, 2000  
 CODEN: BLOOA  
 ISSN: 0006-4971  
 DOCUMENT TYPE: Article  
 LANGUAGES: English SUMMARY LANGUAGES: English  
 NO. OF REFERENCES: 29

8/3/2 (Item 2 from file: 71)  
 DIALOG(R)File 71:ELSEVIER BIOBASE  
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00252271 95050238  
 Fetal liver generates low CD4 hematopoietic cells in murine stromal  
 cultures

Tocci A.; Rezzoug F.; Wahbi K.; Touraine J.-L.  
ADDRESS: Dr. J.-L. Touraine, Transplantation/Clin. Immunol. Unit, INSERM U  
80, Hopital Ed. Herriot, 5, Place d'Arsonval, 69437 Lyon, Cedex 03  
, France  
Journal: Blood, 85/6 (1463-1471), 1995, United States  
PUBLICATION DATE: 19950000  
CODEN: BLOOA  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
LANGUAGES: English SUMMARY LANGUAGES: English

8/3/3 (Item 3 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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00007441 94013984  
Insulin-like growth factor-1 potentiates expansion of interleukin-7-  
dependent pro-B cells  
Gibson L.F.; Piktel D.; Landreth K.S.  
ADDRESS: Dr. L.F. Gibson, Mary Babb Randolph Cancer Center, West Virginia  
Univ. Health Sci. Ctr., Morgantown, WV 26506, United States  
Journal: Blood, 82/10 (3005-3011), 1993, United States  
PUBLICATION DATE: 19930000  
CODEN: BLOOA  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
LANGUAGES: English SUMMARY LANGUAGES: English

8/3/4 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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12410903 BIOSIS NO.: 200000164405  
Expression of VEGFR-2 and AC133 by circulating human CD34+ cells identifies  
a population of functional endothelial precursors.  
AUTHOR: Peichev Mario; Naiyer Afzal J; Pereira Daniel; Zhu Zhenping; Lane  
William J; Williams Mathew; Oz Mehmet C; Hicklin Daniel J; Witte Larry;  
Moore Malcolm AS; Rafii Shahin(a)  
AUTHOR ADDRESS: (a)Hematology-Oncology Division, Weill Medical College of  
Cornell University, 1300 York Ave, Room C-606, New York, NY, 10021\*\*USA  
JOURNAL: Blood. 95 (3):p952-958 Feb. 1, 2000  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

8/3/5 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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09019283 BIOSIS NO.: 199497027653  
Identification and characterization of hematopoietic stem cells from the  
yolk sac of the early mouse embryo.  
AUTHOR: Huang Hua; Auerbach Robert  
AUTHOR ADDRESS: Cent. Dev. Biol., Univ. Wisconsin, Madison, WI 53706\*\*USA  
JOURNAL: Proceedings of the National Academy of Sciences of the United  
States of America 90 (21):p10110-10114 1993  
ISSN: 0027-8424  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

8/3/6 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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05170987 BIOSIS NO.: 000082011608  
BIOCHEMICAL AND PHENOTYPIC CHARACTERIZATION OF HUMAN BASOPHILIC CELLS  
DERIVED FROM DISPERSED FETAL LIVER WITH MURINE T CELL FACTORS  
AUTHOR: SELDIN D C; CAULFIELD J P; HEIN A; OSATHANONDH R; NABEL G;  
SCHLOSSMAN S F; STEVENS R L; AUSTEN K F  
AUTHOR ADDRESS: DEPARTMENT OF MEDICINE, HARVARD MEDICAL SCHOOL, DANA-FARBER  
CANCER INSTITUTE, BOSTON, MASS. 02115.  
JOURNAL: J IMMUNOL 136 (6). 1986. 2222-2230. 1986  
FULL JOURNAL NAME: Journal of Immunology  
CODEN: JOIMA  
RECORD TYPE: Abstract  
LANGUAGE: ENGLISH

8/3/7 (Item 4 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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04000584 BIOSIS NO.: 000076086151  
REGULATION OF MURINE GRANULOCYTE MACROPHAGE PROGENITOR CELL AND HEMOPOIETIC  
\*STEM\* \*CELL\* PROLIFERATION BY FACTORS PRODUCED IN HUMAN FETAL \*LIVER\*  
AUTHOR: CORK M J; WRIGHT E G; RICHES A C  
AUTHOR ADDRESS: CLINICAL SCHOOL, ADDENBROOK'S HOSPITAL, HILLS ROAD,  
CAMBRIDGE CB2 2QQ, UK.  
JOURNAL: LEUK RES 6 (4). 1982. 553-566. 1982  
FULL JOURNAL NAME: Leukemia Research  
CODEN: LERED  
RECORD TYPE: Abstract  
LANGUAGE: ENGLISH  
?s adult(s)stem(w)cell?  
Processing  
2762459 ADULT  
235081 STEM  
5938492 CELL?  
S9 4709 ADULT(S)STEM(W)CELL?  
?s s9 and (isolat? or enrich or prepar?)  
4709 S9  
1801941 ISOLAT?  
2868 ENRICH  
847227 PREPAR?  
S10 871 S9 AND (ISOLAT? OR ENRICH OR PREPAR?)  
?s s10 and (non-adherent or nonadherent)  
871 S10  
64 NON-ADHERENT  
5456 NONADHERENT  
S11 5 S10 AND (NON-ADHERENT OR NONADHERENT)  
?rd  
...completed examining records  
S12 3 RD (unique items)  
?t/3/all

12/3/1 (Item 1 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01030588 1998275193  
Enhanced retroviral transduction of 5-fluorouracil-resistant human bone  
marrow (stem) cells using a genetically modified packaging cell line  
Povey J.; Weeratunge N.; Marden C.; Sehgal A.; Thrasher A.; Casimir C.  
ADDRESS: Dr. C. Casimir, Department of Haematology, Imperial College School  
of Medicine, St Mary's Campus, Norfolk Place, London W2 1PG,  
United Kingdom  
EMAIL: c.casimir@ic.ac.uk  
Journal: Blood, 92/11 (4080-4089), 1998, United States  
PUBLICATION DATE: December 1, 1998  
CODEN: BLOOA  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 39

12/3/2 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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02715730 BIOSIS NO.: 000068026320  
CHARACTERIZATION OF A PRIMITIVE ERYTHROPOIETIC PROGENITOR FOUND IN MOUSE  
MARROW BEFORE AND AFTER SEVERAL WEEKS IN CULTURE  
AUTHOR: HUMPHRIES R K; EAVES A C; EAVES C J  
AUTHOR ADDRESS: MED. BIOPHYS. UNIT, B.C. CANCER RES. CENT., 601 W. 10TH  
AVE., VANCOUVER, B.C. V52 1L3, CAN.  
JOURNAL: BLOOD 53 (4). 1979. 746-763. 1979  
FULL JOURNAL NAME: Blood  
CODEN: BLOOA  
RECORD TYPE: Abstract  
LANGUAGE: ENGLISH

12/3/3 (Item 1 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
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07146796 94033568 PMID: 7693049  
Hematopoietic progenitor cells from patients with adult T-cell  
leukemia-lymphoma are not infected with human T-cell leukemia virus type 1.  
Nagafuji K; Harada M; Teshima T; Eto T; Takamatsu Y; Okamura T; Murakawa  
M; Akashi K; Niho Y  
First Department of Internal Medicine, Faculty of Medicine, Kyushu  
University, Fukuoka, Japan.  
Blood (UNITED STATES) Nov 1 1993, 82 (9) p2823-8, ISSN 0006-4971  
Journal Code: A8G  
Languages: ENGLISH  
Document type: Journal Article  
Record type: Completed

?ds

Set	Items	Description
S1	101833	STEM(W)CELL?
S2	6556	S1(S) (ISOLAT? OR PREPAR? OR ENRICH)
S3	50	S2 AND (NON-ADHERENT OR NONADHERENT)
S4	5	S3 AND LIVER
S5	3	RD (unique items)
S6	3291	LIVER(S)STEM(W)CELL?
S7	14	S6 AND (NON-ADHERENT OR NONADHERENT)
S8	7	RD (unique items)
S9	4709	ADULT(S)STEM(W)CELL?
S10	871	S9 AND (ISOLAT? OR ENRICH OR PREPAR?)
S11	5	S10 AND (NON-ADHERENT OR NONADHERENT)
S12	3	RD (unique items)

?s s10

S13 871 S10  
?s s10 and dt=review  
871 S10  
1061998 DT=REVIEW  
S14 54 S10 AND DT=REVIEW

?rd

...examined 50 records (50)  
...completed examining records  
S15 44 RD (unique items)  
?t/9/1-10

15/9/1 (Item 1 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01718602 2001093587  
Apoptosis in oral mucosa: Lessons from the crypt. A commentary  
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Journal: Oral Diseases, 7/2 (81-85), 2001, United Kingdom  
CODEN: ORDIF  
ISSN: 1354-523X  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 12

The programmed removal of individual \*isolated\* cells from a tissue during development, in the adult steady state, and in pathological abnormalities, is an important regulated process that counter-balances the cells produced due to cell division, and compliments differentiation in the overall tissue homeostatic mechanisms. In stratified epithelium, apoptosis can sometimes be difficult to identify and end-labelling techniques such as TUNEL are difficult to optimise and validate. In the columnar epithelium of the small intestine, apoptosis is easy to recognise by virtue of the morphological changes seen in dying cells in routine paraffin sections. The dying cells fragment and the apoptotic fragments can be reliably counted. Because of the precise cell positional relationship between hierarchical status in the lineage and cell position in the tissue, the cell death can be related to the hierarchical status of the dying cells. In the normal steady state in healthy epithelium a small proportion of \*stem\* \*cells\* are constantly dying. This p53-independent apoptosis is interpreted as part of the homeostatic regulation of \*stem\* \*cell\* numbers. After exposure to low levels of genotoxic agents, such as radiation, some \*stem\* \*cells\* in this tissue are very susceptible to apoptosis induction in a p53-dependent fashion. This has been interpreted to be a genome protective mechanism that accounts at least in part for the unexpected low incidence of cancer in this rapidly proliferating, large mass of tissue within the gastrointestinal tract.

DESCRIPTORS:

Apoptosis; Tongue epithelium; Small intestine; Stem cells; Cell lineages

CLASSIFICATION CODE AND DESCRIPTION:

89.2.5.4 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION /  
Cellular Senescence and Death / Death (apoptosis)

15/9/2 (Item 2 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01624327 2000284177

The potential of bone marrow as a source of neural precursors  
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EMAIL: Jsramos@com1.med.usf.edu  
Journal: NeuroScience News, 3/6 (32-43), 2000, United Kingdom  
CODEN: NUNEF  
ISSN: 1027-6599  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 57

Research on neural \*stem\* \*cells\* \*isolated\* from embryonic, fetal and \*adult\* tissues has engendered novel perspectives regarding the identity, origin and full therapeutic potential of tissue-specific \*stem\* \*cells\*. Review of the similarities and differences between the \*stem\* \*cells\* that give rise to nervous system (neuropoiesis) and those that generate the various blood cell lineages (hematopoiesis) provides new insights into the process of neuronal differentiation. In this review, we compare hematopoiesis and neuropoiesis from several perspectives starting with ontogenetic considerations and ending with discussion of the cellular interactions of marrow-derived cells with neural cells in vitro and in vivo.

DESCRIPTORS:

Stem cells; Neural stem cells; Bone marrow stromal cells; Neuropoiesis  
hematopoiesis; Neuronal differentiation

CLASSIFICATION CODE AND DESCRIPTION:

88.1.2.3 - NEUROSCIENCE / CELLULAR NEUROSCIENCE / Nervous System  
Development / Brain and spinal cord  
88.13 - NEUROSCIENCE / GENERAL CONCEPTS  
89.2.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cell  
Growth / Stem cells  
89.8.9.3 - CELL AND DEVELOPMENTAL BIOLOGY / DEVELOPMENT (BY TISSUE AND  
ORGAN SYSTEMS) / Nervous System / Brain and spinal cord (CNS)  
89.14 - CELL AND DEVELOPMENTAL BIOLOGY / GENERAL CONCEPTS

15/9/3 (Item 3 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01546375 2000209633

\*Isolation\* of pluripotent embryonic \*stem\* \*cells\* from reprogrammed  
\*adult\* mouse somatic cell nuclei

Munsie M.J.; Michalska A.E.; O'Brien C.M.; Trounson A.O.; Pera M.F.;  
Mountford P.S.

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Journal: Current Biology, 10/16 (989-992), 2000, United Kingdom

PUBLICATION DATE: August 24, 2000

CODEN: CUBLE

ISSN: 0960-9822

DOCUMENT TYPE: \*Review\*

LANGUAGES: English SUMMARY LANGUAGES: English

NO. OF REFERENCES: 15

Pluripotent human \*stem\* \*cells\* \*isolated\* from early embryos represent a potentially unlimited source of many different cell types for cell-based gene and tissue therapies [1-3]. Nevertheless, if the full potential of cell lines derived from donor embryos is to be realised, the problem of donor-recipient tissue matching needs to be overcome. One approach, which avoids the problem of transplant rejection, would be to establish \*stem\* \*cell\* lines from the patient's own cells through therapeutic cloning [3,4]. Recent studies have shown that it is possible to transfer the nucleus from an \*adult\* somatic cell to an unfertilised oocyte that is devoid of maternal chromosomes, and achieve embryonic development under the control of the transferred nucleus [5-7]. \*Stem\* \*cells\* \*isolated\* from such a cloned embryo would be genetically identical to the patient and pose no risk of immune rejection. Here, we report the \*isolation\* of pluripotent murine \*stem\* \*cells\* from reprogrammed \*adult\* somatic cell nuclei. Embryos were generated by direct injection of mechanically \*isolated\* cumulus cell nuclei into mature oocytes. Embryonic stem (ES) cells \*isolated\* from cumulus-cell-derived blastocysts displayed the characteristic morphology and marker expression of conventional ES cells and underwent extensive differentiation into all three embryonic germ layers (endoderm, mesoderm and ectoderm) in tumours and in chimaeric fetuses and pups. The ES cells were also shown to differentiate readily into neurons and muscle in culture. This study shows that pluripotent \*stem\* \*cells\* can be derived from nuclei of terminally differentiated \*adult\* somatic cells and offers a model system for the development of therapies that rely on autologous, human pluripotent \*stem\* \*cells\*.

CLASSIFICATION CODE AND DESCRIPTION:

89.2.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cell  
Growth / Stem cells  
89.9.1.1 - CELL AND DEVELOPMENTAL BIOLOGY / MECHANISMS OF DEVELOPMENT /  
Determination, Pattern Formation and Morphogenesis / Mammals  
89.9.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / MECHANISMS OF DEVELOPMENT /  
Developmental Genetics / Mammals  
89.10.1 - CELL AND DEVELOPMENTAL BIOLOGY / EMBRYONIC DEVELOPMENT (BY  
ORGANISM) / Mammals  
84.5.7.5 - GENETICS AND MOLECULAR BIOLOGY / EUKARYOTIC GENETICS / Genetics  
and Development / Mammals  
84.5.8 - GENETICS AND MOLECULAR BIOLOGY / EUKARYOTIC GENETICS / Somatic and  
Fused Cell Genetics

84.5.35 - GENETICS AND MOLECULAR BIOLOGY / EUKARYOTIC GENETICS / Rodent  
Genetics

15/9/4 (Item 4 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01393505 2000069436  
Stem cell therapy and gene transfer for regeneration  
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Journal: Gene Therapy, 7/6 (451-457), 2000, United Kingdom  
CODEN: GETHE  
ISSN: 0969-7128  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 62

The committed stem and progenitor cells have been recently \*isolated\* from various adult tissues including hematopoietic \*stem\* \*cell\*, neural \*stem\* \*cell\*, mesenchymal \*stem\* \*cell\* and endothelial progenitor cell. These \*adult\* \*stem\* \*cells\* have several advantages as compared with embryonic \*stem\* \*cells\* as their practical therapeutic application for tissue regeneration. In this review, we discuss the promising gene therapy application of \*adult\* stem and progenitor cells in terms of modifying \*stem\* \*cell\* potency, altering organ property, accelerating regeneration and forming expressional organization.

DESCRIPTORS:

Stem cell; Gene therapy; Regeneration; Progenitor cell; Differentiation

CLASSIFICATION CODE AND DESCRIPTION:

84.1.13.5 - GENETICS AND MOLECULAR BIOLOGY / MOLECULAR GENETICS / Molecular  
Biology Techniques / Gene transfer  
84.5.11.5 - GENETICS AND MOLECULAR BIOLOGY / EUKARYOTIC GENETICS / Medical  
Genetics / Gene therapy  
84.6.1 - GENETICS AND MOLECULAR BIOLOGY / GENERAL CONCEPTS / Reviews

15/9/5 (Item 5 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01369579 2000045125  
A new look at the origin, function, and 'stem-cell' status of muscle  
satellite cells  
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Journal: Developmental Biology, 218/2 (115-124), 2000, United States  
PUBLICATION DATE: February 15, 2000  
CODEN: DEBIA  
ISSN: 0012-1606  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 80

Muscle satellite cells have long been considered a distinct myogenic lineage responsible for postnatal growth, repair, and maintenance of skeletal muscle. Recent studies in mice, however, have revealed the potential for highly purified hematopoietic \*stem\* \*cells\* from bone marrow to participate in muscle regeneration. Perhaps more significantly, a population of putative \*stem\* \*cells\* \*isolated\* directly from skeletal muscle efficiently reconstitutes the hematopoietic compartment and participates in muscle regeneration following intravenous injection in mice. The plasticity of muscle \*stem\* \*cells\* has raised important questions regarding the relationship between the muscle- derived \*stem\*

\*cells\* and the skeletal muscle satellite cells. Furthermore, the ability of hematopoietic cells to undergo myogenesis has prompted new investigations into the embryonic origin of satellite cells. Recent developmental studies suggest that a population of satellite cells is derived from progenitors in the embryonic vasculature. Taken together, these studies provide the first evidence that pluripotent \*stem\* \*cells\* are present within \*adult\* skeletal muscle. Tissue-specific \*stem\* \*cells\*, including satellite cells, may share a common embryonic origin and possess the capacity to activate diverse genetic programs in response to environmental stimuli. Manipulation of such tissue-specific \*stem\* \*cells\* may eventually revolutionize therapies for degenerative diseases, including muscular dystrophy. (C) 2000 Academic Press.

DESCRIPTORS:

Satellite cells; Myogenic stem cells; Muscle regeneration; Myf5; MyoD

CLASSIFICATION CODE AND DESCRIPTION:

89.2.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cell Growth / Stem cells  
89.5.1.3 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Muscle cells

15/9/6 (Item 6 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01193617 1999166769  
New prospects for human stem-cell therapy in the nervous system  
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Journal: Trends in Neurosciences, 22/8 (357-364), 1999, United Kingdom  
CODEN: TNSCD  
ISSN: 0166-2236  
PUBLISHER ITEM IDENTIFIER: S0166223699014289  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 86

It would be of enormous benefit if human neural tissue could be generated in vitro as this would allow screening for neuroactive compounds, and provide a source of tissue for testing cellular and gene therapies for CNS disorders. It is now well established that pluripotent embryonic \*stem\* \*cells\* (ES cells) from the mouse can be propagated in culture and differentiated into a range of tissues, including neuronal and glial cells. In other studies, more-restricted neural \*stem\* \*cells\* have been \*isolated\* from both the developing and \*adult\* rodent brain. Current reports now describe similar pluripotent and neural \*stem\* \*cells\* cultured from human embryos. While the exact nature of these cells continues to be explored, they can be grown for extended periods of time while retaining the capacity for neuronal and glial differentiation. In some cases, they have been shown to integrate into the developing or damaged \*adult\* brain. This article reviews their biology, with a focus on the possible links between ES-cell and neural \*stem\*-\*cell\* technologies, and the strategies used to \*isolate\* and expand defined cell populations.

CLASSIFICATION CODE AND DESCRIPTION:

88.1.5 - NEUROSCIENCE / CELLULAR NEUROSCIENCE / Nerve and Glial Cell Biology  
89.3.1.4 - CELL AND DEVELOPMENTAL BIOLOGY / CYTOSKELETON AND CELL MOTILITY / Cytoskeleton / Intermediate filaments  
89.5.1.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Nervous system cells  
89.5.3 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Differentiation

15/9/7 (Item 7 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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00958525 1998205114  
Cell-based tissue engineering therapies: The influence of whole body  
physiology  
Haynesworth S.E.; Reuben D.; Caplan A.I.  
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States  
Journal: Advanced Drug Delivery Reviews, 33/1-2 (3-14), 1998, Netherlands  
CODEN: ADDRE  
ISSN: 0169-409X  
PUBLISHER ITEM IDENTIFIER: S0169409X98000167  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 46

A technology has been developed to \*isolate\* a developmentally and phenotypically homogeneous population of pluripotent human mesenchymal \*stem\* \*cells\* (hMSCs) from \*adult\* bone marrow and mitotically expand these cells in culture. These hMSCs have osteoblasts as one of their potential developmental end-stage phenotypes, and, in addition to their osteogenic potential, these hMSCs synthesize and secrete a variety of macromolecules that are known regulators of osteoclast differentiation and activity. In this review, data are presented that demonstrate the phenotypic and developmental homogeneity of the cells in hMSC cultures, as well as their ability to differentiate along multiple phenotypic pathways and serve as regulatory cells for hematopoietic and bone-resorbing cells. In addition, a logic and preliminary data are presented that support the use of hMSCs in the prevention and treatment of age-related and postmenopausal osteoporosis. Since hMSC differentiation and phenotypic expression are controlled by regulatory molecules synthesized and secreted by a variety of local and systemic mechanisms, the issue of whole organism physiology is addressed in considering tissue engineering logics. Copyright (C) 1998 Elsevier Science B.V.

DESCRIPTORS:  
Mesenchymal stem cell; Osteoporosis; Mesengenes; Hematopoiesis; Bone formation; Bone resorption; Cytokines

CLASSIFICATION CODE AND DESCRIPTION:  
99 - General

15/9/8 (Item 8 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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00904796 1998144493  
The regulation and biological activity of interleukin 12  
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Journal: Leukemia and Lymphoma, 29/5-6 (427-438), 1998, United Kingdom  
PUBLICATION DATE: 19980000  
CODEN: LELYE  
ISSN: 1042-8194  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 79

Interleukin 12 (IL-12) is a pleiotropic cytokine and mediates several biological activities on human T and natural killer (NK) cells, including induction of IFN-gamma production, enhancement of cell-mediated cytotoxicity and comitogenic effects on resting T-cells. The major cellular sources producing IL-12 are antigen-stimulated monocytes, macrophages, and B-cells \*isolated\* from peripheral blood mononuclear cells (PBMC). Our laboratory has investigated the regulation of IL-12 gene expression in both cord blood and \*adult\* PBMC, and the effects of IL-12 on induction of IFN-gamma production, NK, and lymphokine-activated killer (LAK) cytotoxicity. IL-12 mRNA expression and protein production in

LPS-stimulated cord blood MNC were 3-4 fold decreased when compared with \*adult\* PBMC. There were no differences between cord blood and \*adult\* PBMC in both basal levels of transcription or the degree of transcriptional activation of the IL-12 gene. Additionally, the half-life of IL-12 p40 mRNA was 3-fold lower in activated cord blood compared to \*adult\* PBMC. Exogenous IL-12 induced a significant increase of IFN-gamma from both cord and \*adult\* PBMC. Cord MNC has significantly reduced levels of NK activity, and IL-12 significantly enhanced cord blood NK cytotoxicity upto similar levels in \*adult\* PBMC. IL-12 also significantly enhanced cord blood NK and LAK activities against a broad range of neuroblastoma, leukemia, and lymphoma cell lines. Lower doses of IL-12 and IL-15 concomitantly generated either synergistic or additive effects on cord blood NK and LAK cytotoxicities. In light of the important biological functions of IL-12, reduced expression and production of IL-12 from activated cord blood may contribute to the immaturity of cord blood cellular immunity and contribute, in part, to decreased severe graft vs. host disease following unrelated cord blood \*stem\* \*cell\* transplantation. IL-12 enhancement of IFN-gamma, NK, and LAK activity in activated cord blood MNC upto comparable levels in \*adult\* PBMC suggests that exogenous IL-12 stimulation can compensate for the immaturity in cord blood cellular immunity. These characteristics of IL-12 biological activity strongly suggest its potential usefulness in future cancer immunotherapy.

DESCRIPTORS:

Regulation; Biological activity; Interleukin 12

CLASSIFICATION CODE AND DESCRIPTION:

86.5.2 - IMMUNOLOGY AND INFECTIOUS DISEASES / HUMORAL MEDIATORS OF IMMUNE RESPONSE / Interleukin

15/9/99 (Item 9 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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00821590 1998058631  
Role of morphogenetic proteins in skeletal tissue engineering and regeneration  
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Journal: Nature Biotechnology, 16/3 (247-252), 1998, United States  
PUBLICATION DATE: 19980000  
CODEN: NABIF  
ISSN: 1087-0156  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 66

Morphogenesis is the developmental cascade of pattern formation and body plan establishment, culminating in the adult form. It has formed the basis for the emerging discipline of tissue engineering, which uses principles of molecular developmental biology and morphogenesis gleaned through studies on inductive signals, responding \*stem\* \*cells\*, and the extracellular matrix to design and construct spare parts that restore function to the human body. Among the many organs in the body, bone has considerable powers for regeneration and is prototype model for tissue engineering. Implantation of demineralized bone matrix into subcutaneous sites results in local bone induction. This model mimics sequential limb morphogenesis and has permitted the \*isolation\* of bone morphogens, such as bone morphogenetic proteins (BMPs), from demineralized \*adult\* bone matrix. BMPs initiate, promote, and maintain chondrogenesis and osteogenesis, but are also involved in the morphogenesis of organs other than bone. The symbiosis of the mechanisms underlying bone induction and differentiation is critical for tissue engineering and is governed by both biomechanics (physical forces) and context (microenvironment/extracellular matrix), which can be duplicated by biomimetic biomaterials such as collagens, hydroxyapatite, proteoglycans, and cell adhesion glycoproteins, including fibronectins and laminin. Rules of tissue architecture elucidated in bone morphogenesis may



provide insights into tissue engineering and be universally applicable for all organs/tissues, including bones and joints.

DESCRIPTORS:

Biomimetic biomaterials; Bone morphogenetic proteins, extracellular matrix; Growth factors; Inductive signals; Stem cells

CLASSIFICATION CODE AND DESCRIPTION:

89.9.1 - CELL AND DEVELOPMENTAL BIOLOGY / MECHANISMS OF DEVELOPMENT / Determination, Pattern Formation and Morphogenesis  
89.9.2 - CELL AND DEVELOPMENTAL BIOLOGY / MECHANISMS OF DEVELOPMENT / Regeneration  
89.14 - CELL AND DEVELOPMENTAL BIOLOGY / GENERAL CONCEPTS

15/9/10 (Item 10 from file: 71)  
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00778246 1998014513

Regulation of hematopoiesis by microvascular endothelium

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Journal: Leukemia and Lymphoma, 27/5-6 (375-386), 1997, United Kingdom

PUBLICATION DATE: 19970000

CODEN: LELYE

ISSN: 1042-8194

DOCUMENT TYPE: \*Review\*

LANGUAGES: English SUMMARY LANGUAGES: English

NO. OF REFERENCES: 86

The bone marrow microenvironment is a complex three dimensional structure where hematopoietic \*stem\* \*cells\* proliferate, mature, migrate into the sinusoidal space, and enter the circulation in an exquisitely regulated fashion. Stromal cells within the BM microenvironment provide a suitable environment for self-renewal, proliferation and differentiation of hematopoietic \*stem\* \*cells\*. Within the hematopoietic microenvironment, whether it is embryonic yolk sac, fetal liver, or \*adult\* bone marrow, microvascular endothelium not only acts as a gatekeeper controlling the trafficking and homing of hematopoietic progenitors, but also provides cellular contact and secretes cytokines that allows for the preservation of the steady state hematopoiesis. Recently, homogenous monolayers of bone marrow endothelial cells (BMEC) have been \*isolated\* and cultivated in tissue culture. Long term coculture studies have shown that BMEC monolayers are unique type of endothelium and can support long-term proliferation of hematopoietic progenitor cells particularly megakaryocytic and myeloid progenitor cells by constitutive elaboration of lineage-specific cytokines such as G-CSF, GM-CSF, M-CSF, Kit-ligand, IL6, FLK-2 ligand, and leukemia inhibitory factor. Direct cellular contact between hematopoietic progenitor cells and BMEC monolayers through specific adhesion molecules including beta1, beta2 integrins and selectins play a critical role in trafficking and possibly proliferation of hematopoietic \*stem\* \*cells\*. Dysfunction of microvascular endothelial cells within the hematopoietic microenvironment may result in \*stem\* \*cell\* disorders and progression to aplastic anemias, and contribute to graft failure during bone marrow transplantation. Further studies on the role of microvascular endothelium in the regulation of hematopoietic \*stem\* \*cell\* homing and proliferation may enhance our understanding of the pathophysiology of \*stem\* \*cell\* and leukemic disorders.

DESCRIPTORS:

Hematopoiesis; Microvascular endothelium; Regulation

CLASSIFICATION CODE AND DESCRIPTION:

89.8.3.2 - CELL AND DEVELOPMENTAL BIOLOGY / DEVELOPMENT (BY TISSUE AND ORGAN SYSTEMS) / Circulatory System / Blood (including haematopoiesis)  
89.2.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cell Growth / Stem cells  
89.5.1.7 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Epithelial and endothelial cells  
?s adult(w)stem(w)cell?

Processing

2762459 ADULT  
235081 STEM  
5938492 CELL?  
S16 83 ADULT(W)STEM(W)CELL?  
?s s16 and (difficult?(w)isolat?)  
83 S16  
278253 DIFFICULT?  
1801941 ISOLAT?  
29 DIFFICULT?(W)ISOLAT?  
S17 0 S16 AND (DIFFICULT?(W)ISOLAT?)  
?s s16 and dt=review  
83 S16  
1061998 DT=REVIEW  
S18 17 S16 AND DT=REVIEW  
?rd  
...completed examining records  
S19 13 RD (unique items)  
?t/3/all

19/3/1 (Item 1 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01771589 2001133092  
Multilineage differentiation from human embryonic stem cell lines  
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Journal: Stem Cells, 19/3 (193-204), 2001, United States  
CODEN: STCEE  
ISSN: 1066-5099  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 84

19/3/2 (Item 2 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01601725 2000261574  
Manipulation of pancreatic stem cells for cell replacement therapy  
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Journal: Diabetes Technology and Therapeutics, 2/3 (453-460), 2000, United  
States  
CODEN: DTTTF  
ISSN: 1520-9156  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 70

19/3/3 (Item 3 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01393505 2000069436  
Stem cell therapy and gene transfer for regeneration  
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Boston, MA 02135, United States  
Journal: Gene Therapy, 7/6 (451-457), 2000, United Kingdom  
CODEN: GETHE  
ISSN: 0969-7128  
DOCUMENT TYPE: \*Review\*

LANGUAGES: English      SUMMARY LANGUAGES: English  
NO. OF REFERENCES: 62

19/3/4      (Item 4 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01381280      2000057117  
Why stem cells?  
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Journal: Science, 287/5457.(1439-1441), 2000, United States  
PUBLICATION DATE: February 25, 2000  
CODEN: SCIEA  
ISSN: 0036-8075  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English      SUMMARY LANGUAGES: English

19/3/5      (Item 5 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01381279      2000057116  
Mammalian neural stem cells  
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EMAIL: gage@salk.edu  
Journal: Science, 287/5457 (1433-1438), 2000, United States  
PUBLICATION DATE: February 25, 2000  
CODEN: SCIEA  
ISSN: 0036-8075  
DOCUMENT TYPE: \*Review\*  
LANGUAGES: English      SUMMARY LANGUAGES: English

19/3/6      (Item 6 from file: 71)  
DIALOG(R)File 71:ELSEVIER BIOBASE  
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01381277      2000057114  
Out of eden: Stem cells and their niches  
Watt F.M.; Hogan B.L.M.  
ADDRESS: F.M. Watt, Keratinocyte Laboratory, Imperial Cancer Research Fund,  
44 Lincoln's Inn Fields, London WC2A 3PX, United Kingdom  
Journal: Science, 287/5457 (1427-1430), 2000, United States  
PUBLICATION DATE: February 25, 2000  
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19/3/7      (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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04406543      BIOSIS NO.: 000028039584  
CULTURING HEPATOCYTES AND OTHER DIFFERENTIATED CELLS  
AUTHOR: REID L M; JEFFERSON D M  
AUTHOR ADDRESS: 601 CHANIN CANCER CENT., DEP. OF MOLECULAR PHARMACOL.,  
ALBERT EINSTEIN COLL. OF MED., 1300 MORRIS PARK AVE., BOX, NEW YORK  
10461.  
JOURNAL: HEPATOLOGY (BALTIMORE) 4 (3). 1984. 548-559. 1984  
FULL JOURNAL NAME: HEPATOLOGY (Baltimore)  
CODEN: HPTLD  
DOCUMENT TYPE: \*Review\*

RECORD TYPE: Citation  
LANGUAGE: ENGLISH

19/3/8 (Item 1 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
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11352197 21113465 PMID: 11177611  
Developmental potential of somatic stem cells in mammalian adults.  
Magli MC; Levantini E; Giorgetti A  
Institute of Mutagenesis and Differentiation, CNR--Area della Ricerca de  
S. Cataldo, Via G. Moruzzi, I, 56100 Pisa, Italy. c.magli@imd.pi.cnr.it  
Journal of hematotherapy & stem cell research (United States) Dec 2000,  
9 (6) p961-9, ISSN 1525-8165 Journal Code: DJX  
Languages: ENGLISH  
Document type: Journal Article; \*Review\*; Review, Tutorial  
Record type: Completed

19/3/9 (Item 2 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
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11204467 21181387 PMID: 11283751  
A unified hypothesis on the lineage of neural stem cells.  
Alvarez-Buylla A; Garcia-Verdugo JM; Tramontin AD  
Nat Rev Neurosci (England) Apr 2001, 2 (4) p287-93, ISSN 1471-0048  
Journal Code: DON  
Languages: ENGLISH  
Document type: Editorial; \*Review\*; Review, Tutorial  
Record type: Completed

19/3/10 (Item 3 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
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10938279 21033749 PMID: 11191025  
Human embryonic stem cell research: implications from an ethical and  
legal standpoint.  
Trepagnier DM  
Journal of the Louisiana State Medical Society (United States) Dec 2000  
, 152 (12) p616-24, ISSN 0024-6921 Journal Code: IVK  
Languages: ENGLISH  
Document type: Journal Article; \*Review\*; Review, Tutorial  
Record type: Completed

19/3/11 (Item 4 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 2001 Dialog Corporation. All rts. reserv.

10715783 20415163 PMID: 10959261  
Multipotent stem cells in the adult mammalian central nervous system.  
Wozniak W  
Department of Anatomy, University School of Medical Sciences, Poznan.  
Folia morphologica (POLAND) 1999, 58 (3 Suppl 2) p57-63, ISSN  
0015-5659 Journal Code: F2D  
Languages: ENGLISH  
Document type: Journal Article; \*Review\*; Review, Tutorial  
Record type: Completed

19/3/12 (Item 5 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 2001 Dialog Corporation. All rts. reserv.

10185893 99289623 PMID: 10359692  
CNS development: The obscure origins of \*adult\* \*stem\* \*cells\*.  
Temple S

Department of Pharmacology and Neuroscience, A-136, Albany Medical  
 College, Albany, New York 12208, USA.  
 Current biology (ENGLAND) Jun 3 1999, 9 (11) pR397-9, ISSN  
 0960-9822 Journal Code: B44  
 Languages: ENGLISH  
 Document type: Journal Article; \*Review\*; Review, Tutorial  
 Record type: Completed

19/3/13 (Item 6 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
 (c) format only 2001 Dialog Corporation. All rts. reserv.

07378860 91160859 PMID: 2001788  
 Cell culture models of differentiation.  
 Watt FM  
 Keratinocyte Laboratory, Imperial Cancer Research Fund, Lincoln's Inn  
 Fields, London, England.  
 FASEB journal (UNITED STATES) Mar 1 1991, 5 (3) p287-94, ISSN  
 0892-6638 Journal Code: FAS  
 Languages: ENGLISH  
 Document type: Journal Article; \*Review\*; Review Literature  
 Record type: Completed

?ds

Set	Items	Description
S1	101833	STEM(W)CELL?
S2	6556	S1(S) (ISOLAT? OR PREPAR? OR ENRICH)
S3	50	S2 AND (NON-ADHERENT OR NONADHERENT)
S4	5	S3 AND LIVER
S5	3	RD (unique items)
S6	3291	LIVER(S)STEM(W)CELL?
S7	14	S6 AND (NON-ADHERENT OR NONADHERENT)
S8	7	RD (unique items)
S9	4709	ADULT(S)STEM(W)CELL?
S10	871	S9 AND (ISOLAT? OR ENRICH OR PREPAR?)
S11	5	S10 AND (NON-ADHERENT OR NONADHERENT)
S12	3	RD (unique.items)
S13	871	S10
S14	54	S10 AND DT=REVIEW
S15	44	RD (unique items)
S16	83	ADULT(W)STEM(W)CELL?
S17	0	S16 AND (DIFFICULT?(W)ISOLAT?)
S18	17	S16 AND DT=REVIEW
S19	13	RD (unique items)

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 \$6.12 0.850 DialUnits File71  
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 \$71.83 Estimated cost this search  
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